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<110> Garvan Institute of Medical Research  
5 HERZOG, Herbert  
  
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Lys Val Ala Asn Leu Thr Glu Pro Val Val Leu Thr Phe Gln His Gln  
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Pro Thr Leu Ser Ser Pro Gly His Trp Ser Ser Ala Gly Cys Glu Thr  
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	Asp	Met	Cys	Glu	Leu	Lys	Arg	Asp	Leu	Gln	Leu	Leu	Ser	Gln	Phe	Leu	
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			225					230					235				
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	Lys	Leu	Gln	Pro	Thr	Ala	Gly	Leu	Gln	Asp	Leu	His	Ile	His	Ser	Arg	
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	Gln	G															

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15	Asn	Thr	Lys	Val	Ala	Asn	Leu	Thr	Glu	Pro	Val	Val	Leu	Thr	Phe	Gln	
			320				325					330					
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	His	Gln	Leu	Gln	Pro	Lys	Asn	Val	Thr	Leu	Gln	Cys	Val	Phe	Trp	Val	
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	Glu	Asp	Pro	Thr	Leu	Ser	Ser	Pro	Gly	His	Trp	Ser	Ser	Ala	Gly	Cys	
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25	Glu	Thr	Val	Arg	Arg	Glu	Thr	Gln	Thr	Ser	Cys	Phe	Cys	Asn	His	Leu	
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	Lys	Pro	Arg	Asp	Tyr	Thr	Ile	Lys	Val	His	Met	Asn	Leu	Leu	Leu	Ala	
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45	Val	Phe	Leu	Leu	Asp	Thr	Ser	Phe	Leu	Leu	Ser	Glu	Pro	Val	Ala	Leu	
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	Leu Lys Leu Ser Ala Met Gly Trp Gly Phe Pro Ile Phe Leu Val Thr	515	520	525
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	Leu Val Ala Leu Val Asp Val Asp Asn Tyr Gly Pro Ile Ile Leu Ala	530	535	540
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	Val His Arg Thr Pro Glu Gly Val Ile Tyr Pro Ser Met Cys Trp Ile	545	550	555
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	Val Phe Leu Phe Asn Met Ala Met Leu Ala Thr Met Val Val Gln Ile	575	580	585
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	Leu Arg Leu Arg Pro His Thr Gln Lys Trp Ser His Val Leu Thr Leu	595	600	605
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	Leu Gly Leu Ser Leu Val Leu Gly Leu Pro Trp Ala Leu Ile Phe Phe	610	615	620
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	Ser Phe Ala Ser Gly Thr Phe Gln Leu Val Val Leu Tyr Leu Phe Ser	625	630	635
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	Ile Ile Thr Ser Phe Gln Gly Phe Leu Ile Phe Ile Trp Tyr Trp Ser	640	645	650
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	Met Arg Leu Gln Ala Arg Gly Gly Pro Ser Pro Leu Lys Ser Asn Ser	655	660	665
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	Asp Ser Ala Arg Leu Pro Ile Ser Ser Gly Ser Thr Ser Ser Ser Arg	675	680	685
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45 Ser Pro Gln Asn Ile Ser Leu Pro Ser Ala Ala Ser Phe Thr Phe Ser  
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50 Phe His Ser Pro Pro His Thr Ala Ala His Asn Ala Ser Val Asp Met  
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5	Pro	Gln	Lys	Ala	Ser	Arg	Arg	Pro	Ser	Ala	Ala	Pro	Ala	Ser	Gln	Gln
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10	Ala Cys Leu Val Thr Ile Ala Ala Tyr Leu Cys Ser Arg Arg Lys Pro	420	425	430			
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20	Leu Leu Asp Thr Ser Phe Leu Leu Ser Glu Pro Val Ala Leu Thr Gly	450	455	460			
25	Ser Glu Ala Gly Cys Arg Ala Ser Ala Ile Phe Leu His Phe Ser Leu	465	470	475	480		
30	Leu Thr Cys Leu Ser Trp Met Gly Leu Glu Gly Tyr Asn Leu Tyr Arg	485	490	495			
35	Leu Val Val Glu Val Phe Gly Thr Tyr Val Pro Gly Tyr Leu Leu Lys	500	505	510			
40	Leu Ser Ala Met Gly Trp Gly Phe Pro Ile Phe Leu Val Thr Leu Val	515	520	525			
45	Ala Leu Val Asp Val Asp Asn Tyr Gly Pro Ile Ile Leu Ala Val His	530	535	540			
50	Arg Thr Pro Glu Gly Val Ile Tyr Pro Ser Met Cys Trp Ile Arg Asp	545	550	555	560		
55	Ser Leu Val Ser Tyr Ile Thr Asn Leu Gly Leu Phe Ser Leu Val Phe	565	570	575			
60	Leu Phe Asn Met Ala Met Leu Ala Thr Met Val Val Gln Ile Leu Arg	580	585	590			
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Leu Ser Leu Val Leu Gly Leu Pro Trp Ala Leu Ile Phe Phe Ser Phe  
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Ala Ser Gly Thr Phe Gln Leu Val Val Leu Tyr Leu Phe Ser Ile Ile  
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Thr Ser Phe Gln Gly Phe Leu Ile Phe Ile Trp Tyr Trp Ser Met Arg  
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	Ala Ser Val Asp Met Cys Asp Leu Lys Lys Glu Leu Gln Gln Leu Ser	
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10	ctg tcc gct gtc ttc ctg ctg gac gtg agc ttc ctg ctc agc gag cct Leu Ser Ala Val Phe Leu Leu Asp Val Ser Phe Leu Leu Ser Glu Pro 445 450 455			1697
15	gtg gca ctg acg ggc tcc gaa gca gcc tgt cgc acc agt gcc atg ttc Val Ala Leu Thr Gly Ser Glu Ala Ala Cys Arg Thr Ser Ala Met Phe 460 465 470 475			1745
20	ctg cac ttc tcc ctg ctt gcc tgc ctc tcc tgg atg ggc ctc gag ggc Leu His Phe Ser Leu Leu Ala Cys Leu Ser Trp Met Gly Leu Glu Gly 480 485 490			1793
25	tac aat ctc tac cga ctg gtg gtg gag gtc ttc ggt acc tat gtg ccc Tyr Asn Leu Tyr Arg Leu Val Val Glu Val Phe Gly Thr Tyr Val Pro 495 500 505			1841
30	ggc tat ctg ctc aag ctg agc atc gtg ggc tgg ggt ttt cct gtc ttc Gly Tyr Leu Leu Lys Leu Ser Ile Val Gly Trp Gly Phe Pro Val Phe 510 515 520			1889
35	ctg gtc act ctg gtg gcg ttg gtg gat gtg aat aac tac ggc ccc att Leu Val Thr Leu Val Ala Leu Val Asp Val Asn Asn Tyr Gly Pro Ile 525 530 535			1937
40	atc cta gct gtg cgc cgg act ccg gaa cgt gtc acc tac ccc tct atg Ile Leu Ala Val Arg Arg Thr Pro Glu Arg Val Thr Tyr Pro Ser Met 540 545 550 555			1985
45	tgc tgg atc cgg gac tcc ctg gtg agc tat gtc acc aac ctg ggc ctc Cys Trp Ile Arg Asp Ser Leu Val Ser Tyr Val Thr Asn Leu Gly Leu 560 565 570			2033
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65	gtc ttc ttt tcc ttt gct tcc ggc acc ttc cag ctt gtc atc ctc tac Val Phe Phe Ser Phe Ala Ser Gly Thr Phe Gln Leu Val Ile Leu Tyr 620 625 630 635			2225

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Leu Phe Ser Ile Ile Thr Ser Tyr Gln Gly Phe Leu Ile Phe Leu Trp
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5  tac tgg tcc atg cgg ttc cag gcc caa ggc ggc ccc tcc cct ctg aag      2321
   Tyr Trp Ser Met Arg Phe Gln Ala Gln Gly Gly Pro Ser Pro Leu Lys
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10 aac aac tca gac agc gcc aaa ctc ccc atc agc tcc ggc agc acc tcc      2369
   Asn Asn Ser Asp Ser Ala Lys Leu Pro Ile Ser Ser Gly Ser Thr Ser
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   tcc agc cgc atc taa gccaccgcca cacctcccct ccgggaggac acatgcatgg      2424
15 Ser Ser Arg Ile
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5 Arg Phe Cys Gly Gln Arg Asn Gln Thr Gln Gln Ser Thr Leu His Tyr  
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10 Asp Gln Ser Ser Glu Pro His Ile Phe Val Trp Asn Thr Glu Glu Thr  
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15 Leu Thr Ile Arg Ala Pro Phe Leu Ala Ala Pro Asp Ile Pro Arg Phe  
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20 Phe Pro Glu Pro Arg Gly Leu Tyr His Phe Cys Leu Tyr Trp Ser Arg  
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His Thr Gly Arg Leu His Leu Arg Tyr Gly Lys His Asp Tyr Leu Leu  
                     100                    105                    110

25 Ser Ser Gln Ala Ser Arg Leu Leu Cys Phe Gln Lys Gln Glu Gln Ser  
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30 Leu Lys Gln Gly Ala Pro Leu Ile Ala Thr Ser Val Ser Ser Trp Gln  
                     130                    135                    140

35 Ile Pro Gln Asn Thr Ser Leu Pro Gly Ala Pro Ser Phe Ile Phe Ser  
                     145                    150                    155                    160

40 Phe His Asn Ala Pro His Lys Val Ser His Asn Ala Ser Val Asp Met  
                     165                    170                    175

Cys Asp Leu Lys Lys Glu Leu Gln Gln Leu Ser Arg Tyr Leu Gln His  
                     180                    185                    190

45 Pro Gln Lys Ala Ala Lys Arg Pro Thr Ala Ala Phe Ile Ser Gln Gln  
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50 Leu Gln Ser Leu Glu Ser Lys Leu Thr Ser Val Ser Phe Leu Gly Asp  
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	Thr	Leu	Ser	Phe	Glu	Glu	Asp	Arg	Val	Asn	Ala	Thr	Val	Trp	Lys	Leu	225	230	235	240
5	Pro	Pro	Thr	Ala	Gly	Leu	Glu	Asp	Leu	His	Ile	His	Ser	Gln	Lys	Glu	245	250	255	
10	Glu	Glu	Gln	Ser	Glu	Val	Gln	Ala	Tyr	Ser	Leu	Leu	Leu	Pro	Arg	Ala	260	265	270	
15	Val	Phe	Gln	Gln	Thr	Arg	Gly	Arg	Arg	Asp	Asp	Ala	Lys	Arg	Leu		275	280	285	
20	Leu	Val	Val	Asp	Phe	Ser	Ser	Gln	Ala	Leu	Phe	Gln	Asp	Lys	Asn	Ser	290	295	300	
25	Ser	Gln	Val	Leu	Gly	Glu	Lys	Val	Leu	Gly	Ile	Val	Val	Gln	Asn	Thr	305	310	315	320
30	Lys	Val	Thr	Asn	Leu	Ser	Asp	Pro	Val	Val	Leu	Thr	Phe	Gln	His	Gln	325	330	335	
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40	Pro	Ala	Ser	Ser	Ser	Thr	Gly	Ser	Trp	Ser	Ser	Ala	Gly	Cys	Glu	Thr	355	360	365	
45	Val	Ser	Arg	Asp	Thr	Gln	Thr	Ser	Cys	Leu	Cys	Asn	His	Leu	Thr	Tyr	370	375	380	
50	Phe	Ala	Val	Leu	Met	Val	Ser	Ser	Thr	Glu	Val	Glu	Ala	Thr	His	Lys	385	390	395	400
	His	Tyr	Leu	Thr	Leu	Leu	Ser	Tyr	Val	Gly	Cys	Val	Ile	Ser	Ala	Leu	405	410	415	
	Ala	Cys	Val	Phe	Thr	Ile	Ala	Ala	Tyr	Leu	Cys	Ser	Arg	Arg	Lys	Ser	420	425	430	
	Arg	Asp	Tyr	Thr	Ile	Lys	Val	His	Met	Asn	Leu	Leu	Ser	Ala	Val	Phe				

	435	440	445
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10	Ser Glu Ala Ala Cys Arg Thr Ser Ala Met Phe Leu His Phe Ser Leu 465 470 475 480		
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20	Leu Val Val Glu Val Phe Gly Thr Tyr Val Pro Gly Tyr Leu Leu Lys 500 505 510		
25	Leu Ser Ile Val Gly Trp Gly Phe Pro Val Phe Leu Val Thr Leu Val 515 520 525		
30	Ala Leu Val Asp Val Asn Asn Tyr Gly Pro Ile Ile Leu Ala Val Arg 530 535 540		
35	Arg Thr Pro Glu Arg Val Thr Tyr Pro Ser Met Cys Trp Ile Arg Asp 545 550 555 560		
40	Ser Leu Val Ser Tyr Val Thr Asn Leu Gly Leu Phe Ser Leu Val Phe 565 570 575		
45	Leu Phe Asn Leu Ala Met Leu Ala Thr Met Val Val Gln Ile Leu Arg 580 585 590		
50	Leu Arg Pro His Ser Gln Asn Trp Pro His Val Leu Thr Leu Leu Gly 595 600 605		
	Leu Ser Leu Val Leu Gly Leu Pro Trp Ala Leu Val Phe Phe Ser Phe 610 615 620		
	Ala Ser Gly Thr Phe Gln Leu Val Ile Leu Tyr Leu Phe Ser Ile Ile 625 630 635 640		
	Thr Ser Tyr Gln Gly Phe Leu Ile Phe Leu Trp Tyr Trp Ser Met Arg 645 650 655		



Phe Gln Ala Gln Gly Gly Pro Ser Pro Leu Lys Asn Asn Ser Asp Ser  
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